Intimate Disclosure Among Best Friends Of Youth: An Opportunity For Prevention Of Internalizing Disorders

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Abstract

As children move into adolescence, two important and contradictory changes regarding peer groups and psychopathology occur. While friendships become characterized more by emotional support than they did in earlier years (especially so for girls), rates for internalizing disorders, particularly depression, increase (again, especially so for girls). Since supportive friendships should protect against internalizing symptoms, researchers have examined the process of intimate disclosure—how youth discuss personal thoughts and feelings—as a potential explanation for this contradiction. This paper will explore youths' responses to disclosure and the impact of these responses.

A review of the literature reveals three constructs from different areas of psychology that offer insight into the disclosure process: reciprocity of disclosure, excessive reassurance seeking and co-rumination. A critical examination indicates that they over-lap greatly, and, may not, in fact, be truly distinct. Developmental differences and gender differences are similar among the constructs, with adolescents tending to disclose more and respond more in-depth than children, and the same being true for girls compared to boys. All are linked with internalizing symptoms, particularly for girls. Rather than viewing children's friendships as superficial (especially those of boys), perhaps it would be advantageous to consider them as models for appropriate disclosure. Various types of prevention will be discussed with this notion in mind.

A Public Mental Health Problem

One of the more significant mental health concerns facing youth as they transition from childhood to adolescence is the threat of internalizing disorders. Risks for developing internalizing symptoms and disorders, namely anxiety and depression, increase during this developmental period (e.g., Avenevoli, Knight, Kessler, and Merikangas 2008; Hankin et al. 1998; Rutter 1991; Sorenson, Rutter, and Aneshensel, 1991). Additionally, in early and middle adolescence, girls begin to manifest higher rates of internalizing symptoms that do boys (e.g., Hankin et al., 1998; Hussong 2000; Mariano and Harton 2005; Rudolph 2002; Rudolph and Conley 2005). Internalizing symptoms are related to serious adjustment outcomes for youth, including significant social impairment (Canino et al. 2004; Gotlib and Hammen 1992; Hammen and Rudolph 1996) along with impairment in occupational performance, interpersonal functioning, quality of life, and physical health in young adulthood (Lewinsohn, Rhode, Seeley,

Klein, and Gotlib 2003). Furthermore, emotional distress during adolescence is associated with an increased risk of suicide (Harrington et al. 1994; Weissman et al. 1999).

Interestingly, another developmental change is taking place that ought to provide youth with protection against this mental health threat. The nature of friendships and the functions they serve change as children develop into adolescents. In childhood, friends serve as playmates; in adolescence, they are viewed as confidants who provide emotional closeness (Buhrmester 1990; 1996; Furman and Buhrmester 1992). Gender differences in friendship also emerge during the developmental transition from childhood to adolescence. Adolescent girls tend to place more importance on affirmation of connectedness in their friendships, whereas boys favor verification of status or agency (Buhrmester 1996). Adolescent girls report more intimacy and support within their friendships than do boys (Burda, Vaux, and Schill 1984; Dindia and Allen 1992; Rose and Rudolph 2006). In sum, adolescent friendships ought to offer more support than childhood friendships, with the friendships of girls being more supportive than those of boys. However, these findings run contrary to the expectation that supportive friendships would offer protection against emotional distress.

Because intimate disclosure is an important hallmark of the difference between children and adolescents' friendships and ought to serve as a buffer against internalizing symptoms, this paper focuses on youths' responses to disclosure and the impact of these responses on their emotional adjustment. Thus, the main purpose of this paper is to explore the role of intimate disclosure as a process contributing to the increase in internalizing symptoms experienced by youth as they enter adolescence, with special attention to gender differences and perspectives from different areas of research. In reviewing the literature, this paper is organized around two main areas of conflict in the research: 1) defining and measuring distress, and 2) over-lapping constructs regarding the disclosure processes. A critical examination of how different branches of psychology and related disciplines approach the study of disclosure may lead to a better understanding with potential to addressing this public mental health problem.

Issues with Definitions and Measurement

Defining Internalizing Problems. Anxiety and depression are often referred to as "internalizing disorders," which have been defined as "conditions whose central feature is disordered mood or emotion" (Kovacs and Devlin 1998, p.47). The symptoms of internalizing disorders include withdrawal, fearfulness, inhibition, and/or anxiety (Hogue and Steinberg 1995; Kovacs 1998). Despite being recognized as separate disorders by the DSM-IV (American Psychiatric Association 1994), empirical studies tend to find that depressive and anxious symptoms overlap considerably, particularly in children and adolescents (Achenbach and Edelbrock 1978; Reynolds 1992). At subclinical levels, depression and anxiety occur as part of an overall internalizing symptom picture; they can only be reliably distinguished for clinically impaired

youth (Achenbach and McConaughy 1992; Brady and Kendall 1992; Compas, Ey, and Grant 1993).

Recent research efforts have attempted to explain the shared aspects of these internalizing disorders. Findings of strong correlations (Brady and Kendall 1992), co-morbid diagnoses (Angold, Costello, and Erkanli 1999; Zahn-Waxler, Klimes-Dougan, and Slattery 2000), and successive diagnoses (Avenevoli et al. 2001; Mineka, Watson, and Clark 1998) have led to this increased interest (Jacques and Mash 2004). In the adult literature, a tripartite model has been proposed in which symptoms of anxiety and depression are considered along three broad dimensions (Clark and Watson 1991; Watson et al. 1995). The first dimension consists of general affective distress or negative affect (NA) and is associated with both depression and anxiety. Physiological hyperarousal (PH), the second dimension, applies only to anxiety. The third dimension, a lack of positive affect (PA), applies only to depression. Researchers believe that the strong association between anxiety and depression can be explained by the shared symptoms of NA (Watson et al. 1995). Burgeoning evidence for this tripartite model has been found in nonclinical samples of children (Chorpita, Daleigden, Moffitt, Yim, and Umemoto 2000; Muris, Schmidt, Merckelbach and Schouten, 2001; Philips, Lonigan, Driscoll, and Hooe 2002). However, studies suggest that the model is best supported in older children and adolescents (Cole, Truglio, and Peeke 1997; Jacques and Mash 2004).

Measuring Internalizing Problems. In order to assess internalizing symptoms, various methods may be used, the most common including self-report measures and surveys completed by important others. Questionnaires are easy to complete and allow researchers to gather data on many participants in a short amount of time. These measures assess the severity and frequency of symptom (Michael and Merrell 1998), but are not meant for diagnostic purposes. Clinical interviews do allow for clinical judgment; however, they are extremely time-consuming and require a reliable interviewer who is a trained clinician (Aschenbrand, Angelosante, and Kendall 2005). Thus, many researchers rely on self-report or other-report questionnaires.

There are many self-report measures utilized to identify internalizing symptoms. The Youth Self Report (*YSR*; Achenbach 1991) is an example of one type of self-report questionnaire that assesses the presence of internalizing symptoms in youth. There are a plethora of self-report measures that assess only the presence of depressive or anxious symptoms. For example, the Reynolds Adolescent Depression Scale (RADS; Reynolds 1986), Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, and Erbaugh 1961), Children's Depression Inventory (CDI; Kovacs 1980), and Depression Scale of the Center for Epidemiologic Studies (CES-D; Radloff 1977; CES-DC; Weissman, Orvaschel, and Padian 1980) are examples of frequently used self-report scales to assess depressive symptomatology. Several popular self-report measures of anxiety include the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds and Richmond 1985), the revised Fear Survey Schedule for Children (RSSC-R; Ollendick 1983), the State-Trait Anxiety Scale for Children (STAIC; Speilberger 1973), and the Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, and Conners 1997).

However, whereas such questionnaires are designed to measure symptoms of *only one* disorder, they frequently include symptoms of comorbid disorders as well. For example, the Children's Depression Inventory (*CDI*; Kovacs 1980) includes symptoms of anxiety in addition to symptoms considered to be more characteristic of depression (Compas et al. 1997).

There also are a multitude of other-report questionnaires available, but researchers have cautioned that a report by the child of his or her own state is important since internal distress may not be identifiable by others (Flanery 1990). Maternal reports have been utilized, but findings suggest that there are discrepancies between maternal reports and youth's self-reports of internalizing symptoms (e.g., Breslau, Davis, and Prabucki 1988; Friedlander, Weiss, and Traylor 1986; Jensen, Traylor, Xenakis, and Davis 1988), which have led researchers to question the validity of maternal-reports, especially concerning ratings of depressive symptoms. Several explanations for this disagreement have been suggested. For example, Compas et al. (1997) suggested that perhaps because many symptoms of depression are not readily observable, it might be difficult for others to reliably assess another's depression. Another explanation suggests differences between clinical and community samples. Studies indicate that there seems to be better agreement between maternal- and self-reports in non-clinical samples (e.g., Butler, MacKay, and Dickens 1995;Thomas, Forehand, Armistead, Wierson, and Fauer 1990). Discrepancies in clinical samples may be related to higher incidences of maternal psychopathology (e.g., Berg-Nielsen, Vika, and Dahl 2003; Najman et al. 2001).

In addition to determining who reports on the youth's level of distress, another area of contention is establishing what constitutes distress. Some researchers employ clinical cut-off scores to categorize youth, while others use continuous scores. All indices of distress may be important to study, in that even at the symptom-level (as compared to the disorder-level), they are related to dysfunction (Judd, Akiskal, Maser, Zeller, Endicott, and Coryell 1998; Kandel and Davies 1982; Pine, Cohen, Cohen, and Brook 1999). For example, moderate depressive symptoms have been found to be associated with academic and peer relationship problems (Nolen-Hoeksema, Girgus, and Seligman 1992; Susman, Dorn, and Chrousos 1991). Even subclinical levels of depressive symptoms have been associated with significant psychosocial impairment (Judd et al. 1998; Lewinsohn, Solomon, Seeley, and Zeiss 2000; Pickles, Rowe, Simonoff, Foley, Rutter, and Silberg 2001). Like individuals with sub-clinical levels of depression, individuals with sub-clinical levels of anxiety tend to suffer on adjustment indices compared to non-anxious individuals (Papsdorf and Alden 1998). Thus, all the different classifications are important areas of legitimate study (Compas et al. 1993).

Summary of Distress Findings. Comparing the results of studies is difficult because of lack of agreement among researchers for what constitutes emotional distress and how to ascertain it. Special attention must be paid to which measures are used, and how they are used before conclusions may be drawn. Conflicting results may be a result of differing methodologies. When

studying internalizing disorders in youth, researchers need to ensure that their methods are developmentally appropriate and sensitive to the issues children and adolescents face. One way to approach the study of youth disorders it to identify important developmental tasks and assess whether symptoms affect these tasks.

Forming close peer relationships is an important developmental task of the pre-adolescent and adolescent period (Berndt 1982; Daley and Hammen 2002; Parker, Rubin, Earth, Wojslawowicz, and Buskirk 2006). The influence of parents and peers changes as a child moves into adolescence. Contact with peers increases, whereas parental monitoring decreases during the transition into adolescence (Brown 1990). Research indicates that during adolescence, best friendships become increasingly important as sources of social support, and that close friends significantly contribute to adolescents' self-concept and adjustment (Buhrmester 1990; Compas, Slavin, Wagner, and Vannatta 1986; Furman and Buhrmester 1992).

Numerous studies have documented the association between adolescents' peer relationships and internalizing symptoms of depression and anxiety (e.g., Hecht, Inderbitzen, and Bukowski 1998; Vernberg 1990). Children who have friends seem to negotiate the middle school transition better than those who do not (Hartup 1996; 2000). Research indicates that close friends significantly contribute to adolescents' self-concept and adjustment (Asher, Parker, and Walker 1996; Buhrmester 1990; Compas et al. 1986; Furman and Buhrmester 1992; Rubin, Dwyer, Booth-LaForce, Kim, Burgess, and Rose-Krasnor 2004). However, it is important to note that friendships can serve as a source of support (Berndt, Hawkins, and Jiao 1999) or as a source of stress (Elias, Ubriaco, Reese, Gara, Rothbaum, and Haviland 1992).

Disclosure in Best Friendships of Youth

Intimate disclosure may include discussion of daily thoughts and concerns or more serious problems, such as parental divorce (Rotenberg 1995). As noted above, in adolescence, youth depend more on their friends for intimacy, self-disclosure, and help solving problems (Berndt and Perry 1990; Buhrmester 1990, 1996; Newcomb and Bagwell 1996). Research on communication in relationships indicates that as relationship closeness increases, communication becomes higher in both breadth and depth of disclosure, meaning that close friends share more intimacy and that this sharing generates feelings of emotional closeness (Altman and Taylor 1973).

One important aspect of friendship is intimate disclosure. Disclosure may include discussion of daily thoughts and concerns or more serious problems, such as parental divorce (Rotenberg 1995). In the study of disclosure processes, it is believed that both verbal and nonverbal communications vary along a depth continuum, from very superficial to very personal (Altman and Taylor 1973). Developmental theorists (e.g., Sullivan 1953; Youniss 1980) have posited that as youth age, disclosure becomes more central to their friendships. There is an

increase with age in disclosure to peers above that to parents (Buhrmester and Prager 1995). Particularly in middle childhood and early adolescence, youth are more likely to disclose to (and share more intimate disclosures with) same-sex friends than other-sex friends or parents (Buhrmester and Prager 1995). As children enter adolescence, youth depend more on their friends for intimacy, self-disclosure, and help solving problems (Berndt and Perry 1990; Buhrmester 1990, 1996; Buhrmester and Furman 1987; Newcomb and Bagwell 1996). Research on communication in relationships indicates that as relationship closeness increases, communication becomes higher in both breadth and depth of disclosure, meaning that close friends share more intimacy and that this sharing generates feelings of emotional closeness (Altman and Taylor 1973).

Research also has indicated that there are gender differences pertaining to normative disclosure processes. In general, females tend to disclose more than do males (Buhrmester and Prager 1995). Females report more breadth and depth of disclosure in their interpersonal relationships than do males (Baxter and Wilmot 1983). Female friendships are more likely to entail intimacy and disclosure than male friendships, especially in adolescence (Berndt 1982; Cohn and Strassberg 1983; Cooper and Ayers-Lopez 1985). Research from the sociolingual perspective mirrors these findings; girls talk to their best friends about troubles while boys are uncomfortable with such as task (e.g., Tannen 1990). Research comparing males and females has indicated that females place a greater emphasis on harmonious relationships and demonstrate more social-evaluative concerns (Cross and Madson 1997; Maccoby 1990). Some researchers have suggested that females' investment in relationships may expose them to more stress (e.g., Gore et al. 1993; Kessler and McLeod 1984). By being emotionally involved in the lives of others, females may become vulnerable to the stresses of their own life events and to the stresses of their friends' life events (Kessler and McLeod 1984).

Since disclosure is such an important aspect of interpersonal relationships, especially during this developmental period, it is important to examine whether distressed youth have difficulty with this aspect of their friendships. Research with emotionally distressed individuals suggests that their social skills make them less than ideal candidates for disclosure. Depressed individuals have been found to make less eye contact, talk less, and smile less in conversation than nondepressed people (e.g., Segrin 1990; Segrin and Abramson 1994). The behavioral manifestations of anxiety are similar to those of depression, including lack of eye contact; speech disturbances, such as stutters and omissions; and fewer facial expressions, which also may make them less desirable partners for disclosure (Cheek and Buss 1981; Jones and Carpenter 1986; Papsdorf and Alden 1998). Socially anxious individuals are viewed as less likable, less sympathetic, and less easy to talk to by their friends and family members (Jones and Carpenter 1986). Some studies have suggested that anxious individuals spend less time talking, select less intimate topics, and fail to reciprocate their partner's level of disclosure (Bruch, Gorsky, Collins, and Berger 1989; Cheek and Buss 1981; Meleshko and Alden 1993).

However, an important limitation to this work is that many of these studies assess conversations between the distressed individual and strangers, such as an interviewer or unknown peer (Edison and Adams 1992; Papsdorf and Alden 1998), roommates (Burchill and Stiles 1988) or spouses (Ruscher and Gotlib 1988)—but not friends. In an exception, Segrin and Flora (1998) compared college undergraduate students' verbal behaviors in conversations with friends to conversations with strangers. Half of the depressed participants (those with *BDI* scores greater or equal to 12) were invited to the laboratory with a close friend, while the other half was matched with an unfamiliar peer. (Close friends were not assessed for level of depressive symptomatology.) The dyads were instructed to discuss their day and any other topics that emerged in conversation. When conversing with friends (as compared to strangers), depressed adolescents used more negative language, including criticism, negative solutions, justifications, disagreements, and negative self-disclosure. Surprisingly, they found that depressed individuals used more partner-focused speech (which included utterances that reflected an understanding of the partner's experience by the speaker, such as a confirmatory statement) than nondepressed youth, especially in conversations with friends.

Topics of Disclosure. The research concerning topics of disclosure is somewhat sparse. In general, youth disclose more intimate information to friends than nonfriends (Rotenberg and Sliz 1998). The topics of disclosure may depend on the gender of the individuals disclosing. Girls' conversations with best friends tend to be more tightly focused and cover a smaller number of topics than boys' conversations (Tannen 1990). Research on interpersonal relationships suggests that individuals approach friendships with a specific type of orientation that may be gender-specific (Cantor and Malley 1991; McAdams 1984). Girls tend to be relationship-oriented and focused on receiving peer approval, whilst boys tend to be more activity-focused (Rose and Rudolph 2006; Rudolph and Conley 2005). More specifically, girls are more likely to share information about interpersonal problems and concerns than are boys (Buhrmester and Prager 1995). These findings suggest that topics of disclosure vary by gender, with girls discussing problems relating to interpersonal relationships and boys discussing problems relating to activities.

In one of the most thorough investigations of disclosure topics, Carlson, Schwartz, Luebbe, and Rose (2006) asked 10th grade same-sex friend dyads to discuss problems for 16 minutes while being videotaped. Dyads discussed an average of five problems in that time. Evidence for gender differences in problem types was found. *Girls* were most likely to discuss problems about other close friends, whereas *boys* were most likely to discuss problems about extra-curricular activities. Other types of problems discussed included those with romantic partners, peers in general, parents, other family members, and academics. Unfortunately, this information was presented at a conference and has yet to be published.

Importantly, distressed youth may have different concerns that they discuss in their friendships. Heller and Tanaka-Matsumi (1999) matched depressed adolescents (ages 13 through 18) with a non-depressed peer (within 3 years of age of each other). Dyads were instructed to discuss two topic areas, "negative, sad experiences" and "positive, easy to discuss experiences." Researchers found that the topics of conversation included friends positive, friends negative, family positive, family negative, hobbies, disease/sickness, death, sex, drugs/alcohol/cigarettes, physical/sexual abuse, school, future goals, and other. In a study of college undergraduates, Jacobson and Anderson (1982) investigated spontaneous self-disclosure and depression. Depressed and nondepressed undergraduates waited in a room with an unfamiliar peer (a confederate) while researchers audiotaped their interactions. Depressed undergraduates made more negative self-statements than nondepressed adolescents. Additionally, in response to neutral remarks by the confederate, depressed undergraduates were more likely to self-disclose.

In sum, more research is needed to determine topics that youth disclose with their best friends. The aforementioned studies suggest that there are gender differences, with girls discussing relationship problems and boys discussing activity-related problems. However, it is quite common in these studies for investigators to direct youth to discuss problems—these conversations do not spontaneously occur. Possibly, the topics that youth disclose naturally may differ.

Responses to Disclosure. There are various ways in which youth may respond to self-disclosures. Derlega and Grezelak (1979) posited that there are five functions of disclosure. They include 1) receiving social validation, 2) gaining social control (or managing others' impressions of the self), 3) achieving self-clarification, 4) exercising self-expression, and/or 5) enhancing relationship development. Considering these functions of disclosure, it would seem that most individuals expect their friends to respond to a self-disclosure in a kind and helpful manner. However, youth may respond in a more negative fashion, perhaps becoming irritated if they find the disclosure to be inappropriate. The study of how youth (and adults) respond to disclosure has been segregated by various areas of psychology and across different disciplines; the following sections attempt to address over-lapping constructs and ideas.

Reciprocity of disclosure. Social psychologists argue that there is a tendency for individuals to respond to disclosure with their own disclosure, known as reciprocity of self-disclosure (Jourad 1959; Miller and Kenny 1986; Worthy, Gary, and Kahn 1969). Reciprocity is thought to demonstrate a mutual understanding, which is important to friendship at any age (Rotenberg and Sliz 1998). Disclosure reciprocity is considered normative, especially in close relationships (Caltabiano and Smithson 1983). In studies of disclosure reciprocity, researchers typically investigate whether individuals respond to a statement of self-disclosure with their own disclosure. In one such study, Cohn and Strassberg (1983) played prerecorded disclosures that

varied in intimacy to 3rd graders and 6th graders. Participants were asked to respond by disclosing on topics varying in intimacy. The researchers found that youth spent more time providing intimate disclosures when they heard a high-intimate disclosure than when they heard a low-intimate disclosure. No age differences were found in this study.

However, other studies of youth have found that disclosure reciprocity may be a developmental skill. For example, Rotenberg and Chase (1992) created videotapes of children providing statements of varying levels of intimate disclosure. The videotapes were shown to children and young adolescents (in kindergarten, second, fourth, and sixth grades) who were asked to respond to the statements with information about themselves. The statements they responded to were of high, medium, and low intimacy. Young children (those in kindergarten and 2nd grade) did not demonstrate reciprocity of self-disclosure. Pre-adolescents (4th graders) demonstrated reciprocity during the high and low intimacy conditions. Young adolescents (6th graders) demonstrated reciprocity in all three conditions- high, medium, and low intimate disclosures. It is important to note that in the aforementioned studies, youth disclosed to unfamiliar peers, not friends.

These findings may not apply to the friendships of distressed youth as several studies have demonstrated that both anxious and depressed youth do not display normative patterns of disclosure. Anxious individuals fail to reciprocate their partner's level of disclosure, spend less time talking, and select less intimate topics than do non-anxious individuals (Bruch et al. 1989; Cheek and Buss 1981; Leary, Knight, and Johnson 1987; Meleshko and Alden 1993). Depressed individuals, on the other hand, disclose at higher levels of intimacy, especially about negative topics (Blumberg and Hokanson 1983; Jacobson and Anderson 1982). Furthermore, that which determines reciprocity of disclosure may not be internalizing symptoms, but rather, the similarity of partners.

Papsdorf and Alden (1998) matched anxious undergraduate women with a confederate. Confederates were female research assistants, two of who were not anxious and two of who indicated moderate anxiety. Papsdorf and Alden (1998) found that confederates were not different from each other on any of the dependent variables; thus, all data were combined. The dyad was instructed to get to know each other using a list of provided topics. They found that anxiety did not predict self-disclosure; rather intimacy of disclosure predicted ratings of similarity, which impacted partners' liking of each other and desire for future contact. While these researchers did investigate potential partner differences on dependent variables, they did not assess the differences in dyads with two anxious females versus dyads with only one anxious female. It is also important to note that many of these studies relied on undergraduate samples (e.g., Meleshko and Alden 1993; Papsdorf and Alden (1998); thus, further research is needed to explore whether these findings hold true for youth.

Thus, from a social psychology perspective, when youth respond to a friend's disclosure with one of their own, they are simply demonstrating reciprocity of disclosure. They have been

socialized to interact in this way. This construct explains why friendships with high amounts of disclosure are rated as high quality friendships. Some evidence suggests reciprocity is a developmental skill (e.g., Rotenberg and Chase 1992) corresponding with the finding that the friendships of older youth feature more intimate disclosure. An important limitation to this area of work is that gender differences have not been explored and more developmental work is needed.

Excessive reassurance seeking. Clinical psychologists focus on intimate disclosure among the relationships of those suffering from internalizing disorders. There is reason to believe that depressed and anxious youth may evoke negative responses from others. Coyne's (1976) interactional theory of depression (sometimes referred to as his interpersonal theory, e.g., Potthoff, Holanhan, and Joiner 1995) argues for a cyclical pattern in which depressed individuals frustrate their significant others, eroding the relationship and eliciting depression in both themselves and the others. Similarly, Arkin's (1981) and Millon's (1981) theories suggest that anxious individuals employ self-protective behaviors that induce negative emotions in their relationship partners and result in partner avoidance. Building upon Coyne's (1976) interactional theory, Joiner, Metalsky, and colleagues (Joiner 1994; Joiner, Alfano, and Metalsky 1992; Joiner and Metalsky 2001) have suggested that depressed individuals seek reassurance about significant others' feelings for them. However, when the other provides reassurance, the depressed person doubts the support and seeks further reassurance. The repeated demands for assurance frustrate the other and erode the relationship. Research has verified a link between excessive reassurance seeking and depressive symptoms, but many of these studies were conducted with adults (e.g., Gotlib and Beatty 1985; Gotlib and Robinson 1982; Strack and Coyne 1983).

In recent years, there have been some studies conducted with children and adolescents. Studies of undergraduate samples have replicated these patterns, showing that depressed adolescents are more likely to exhibit an excessive reassurance seeking style and, thus, be more likely to be rejected by significant others (e.g., Joiner 1994; Joiner et al. 1992; Joiner and Metalsky 2001; Joiner, Metalsky, Katz, and Beach 1999). In a study of psychiatric inpatients, ages 7 through 17, Joiner (1999) found that depressive symptoms were associated with self-reported interpersonal rejection, especially among those who indicated an excessive reassurance seeking style. Age differences were not found, but a limitation to this study is that the sample was rather small (N= 68) and may not have provided enough variability for developmental analyses. Another study of psychiatric inpatient males also found that depressive symptoms were associated with self-reported interpersonal rejection, especially among those who indicated an excessive reassurance seeking style (Joiner and Barnett 1994).

An important note is that most of these studies utilize clinical samples, which may offer a narrow perspective how reassurance seeking operates. In a study of non-clinical youth, Prinstein and colleagues (Prinstein, Borelli, Cheah, Simon, and Aikins 2005) gathered information over

the course of three years on peer acceptance, friendship quality and stability, and depressive symptoms from youth in the 6th through 8th grades. They found that depressive symptoms were associated with less stability in friendships and with increases in perceptions of negative friendship quality. Girls and boys did not report significantly different levels of reassurance-seeking behaviors. However, it was only for girls that reassurance seeking had a significant negative consequence on friendship, and this relation depended on the reporter. Adolescent girls reporting on their own behaviors did not perceive their own reassurance-seeking behaviors to be responsible for decreases in positive friendship quality. However, their friends' reports indicated such a relation. Furthermore, for girls, increasing levels of reassurance seeking were predicted by depressive symptoms and peer rejection combined with perceptions of negative friendship quality. These findings highlight the importance of considering individuals' perceptions and the role perspective plays in interpersonal relationships.

It is important to note that these studies utilized self-report scales. The only observational study of excessive reassurance seeking was conducted with college undergraduate students (Joiner and Metalsky 2001). Additionally, there have been few investigations of excessive reassurance seeking and anxiety (e.g., Burns, Brown, Plant, Sacs-Ericsson, and Joiner 2006; Joiner and Schmidt 1998). Considering the co-morbidity of depression and anxiety along with the similarity in behavioral manifestations, it seems quite likely that the current findings may apply to anxious individuals as well. Studies do suggest that negative reactions from others perpetuate the negative social expectations and avoidance found in anxious individuals (Alden and Bieling 1997; Clark and Wells 1995). However, studies assessing whether excessive reassurance-seeking predicts anxiety have found no evidence for this relation (Burns et al. 2006; Joiner and Schmidt 1998) and suggest that excessive reassurance-seeking is specific to depression. Both of these studies utilized college undergraduate samples; more work is needed with other age groups.

One may also view these negative responses as part of a "misery loves company" scenario, which has been suggested for shy, withdrawn children (Rubin et al. 2006). Rubin and colleagues found that shy/withdrawn children (in the 5th grade) were more likely to befriend other shy/withdrawn children and that these friendships tended to be lower in quality than those of typical children. They hypothesized that the coping of two shy/withdrawn children who have poor self-perceptions and trouble with peers may lead to internalizing problems. It seems reasonable to extend this line of thought to the friendships of anxious/depressed youth.

Co-rumination. Finally, co-rumination, a relatively new construct from developmental psychology, refers to excessively discussing problems within a dyadic relationship (Rose 2002; Rose, Carlson, and Waller 2007). It integrates the construct of intimate disclosure with a social, interactive form of rumination. Co-rumination includes frequently discussing problems, discussing the same problem repeatedly, *mutual* encouragement of discussing problems,

speculating about problems, and focusing on negative feelings. In the context of co-rumination, this sharing of negative feelings is thought to be maladaptive (Rose 2002; Rose, Carlson, and Waller 2007). Since this construct is in its infancy, currently, much of the research comes from the originator's laboratory. It is important to note, however, that this construct has received much attention in the peer relationships literature. A search in the database Google Scholar revealed that Rose's (2002) initial study has been cited 230 times as of May 2012.

In the first study, Rose (2002) assessed co-rumination, friendship, and internalizing symptoms in children in grades three, five, seven, and nine. She found that co-rumination was related to high quality, close friendships, and internalizing symptoms of anxiety and depression. There also were age and gender "main effects," with girls reporting co-rumination more than boys, and adolescent girls co-ruminating more than any other group. These higher amounts of co-rumination helped to account for girls' higher friendship quality and greater internalizing symptoms. Thus, Rose (2002) suggests that higher quality friendships may provide an opportunity for co-rumination, which may lead to more emotional distress.

In a later study, Rose, Carlson and Waller (2007) conducted a 6-month longitudinal study with children and adolescents examining whether co-rumination served as both a risk factor for internalizing symptoms and a protective factor for friendship problems. Youth in the 3rd, 5th, 7th and 9th grades completed self-report questionnaires on co-rumination, friendship quality, depression and anxiety. Significant gender differences emerged. Among girls, co-rumination predicted increases in self-report depressive and anxious symptoms along with increased positive friendship quality, which contributed to greater co-rumination. Among boys, co-rumination did not predict increases in depressive and anxious symptoms, only increased positive friendship quality. Interestingly, developmental differences did not emerge, which may reflect the young age of this sample. The results of this study indicate that how boys and girls approach problems in their friendships may differ and, furthermore, that this difference may be linked with adjustment outcomes. Thus, it seems that for girls, co-rumination may serve as a mechanism for emotional problems among friends while it strengthens boys' friendships without any drawbacks.

A longer (one year) longitudinal study by Starr and Davila (2009) had contradictory findings regarding the link between co-rumination and psychological distress. Seventh and eighth grade girls completed questionnaires relating to co-rumination, depressive symptoms and social anxiety, peer relational style, self-perceived competence in peer relationships, and romantic experiences. Data was collected again one year later. Like previous findings (Rose, 2002; Rose et al., 2007), this study found that co-rumination is related to increases in depressive symptoms and positive aspects of friendship. However, in Starr and Davila's study (2009), co-rumination, on average, did not predict changes in depressive symptoms. Their study did find that co-rumination correlated negatively with social anxiety. Furthermore, co-rumination was associated with high levels of romantic experiences, and romantic involvement moderated co-rumination's impact on depressive symptoms. The authors suggest that further research should examine the conditions under which co-rumination increases risk for depression. They also not

that co-rumination is a public form of self-disclosure, unlike rumination which is private experience. Further research needs to attend to this difference as well.

In the longest study to date, Stone and colleagues (2011) found that co-rumination predicted the onset of depressive symptoms over a two-year follow-up, and levels of co-rumination mediated the gender difference in time to depression onset. This study was different from previous work in that clinically significant depressive episodes were assessed, not general psychological distress. Also, youth in this study ranged from age 11 to 15 years, with a median age of 13. As with previous work, this study found that girls reported significantly higher levels of co-rumination than boys and girls exhibited a significantly shorter time to onset of depression than boys. Results from Stone and colleagues' study (2011) suggest that co-rumination might serve as one mechanism for adolescent girls' increased risk for depression.

Summary of disclosure responses. Thus, there is evidence for a variety of ways youth may respond to disclosures within their best friendships. Clear gender differences have emerged, with girls disclosing more (Burhmester and Prager 1995), having tighter focus in their conversations and covering a smaller number of topics (Tannen 1990), and concentrating their talk on interpersonal problems and concerns (Carlson, Schwartz, Luebbe and Rose 2006) than boys. In terms of responses to disclosure, the findings are not so clear. Regarding reciprocity of disclosure, it seems to increase with age (Rotenberg and Chase 1992) but gender differences have not been explored. Girls and boys do not seem to differ in levels of excessive reassurance seeking, but it appears to have a negative impact only for girls (Prinstein et al. 2005). Similarly, girls co-ruminate more than boys, and co-rumination only has a negative impact on girls (Rose, Carlson and Waller 2007; Stone et al. 2011).

There are several limitations to the described work. Many of the disclosure studies were conducted with normative youth samples or non-friend dyads (e.g., Cohn and Strassberg 1983; Rotenberg and Chase 1992). Furthermore, there is a pronounced need for observational studies directly examining natural interactions between distressed youth and their friends. In much of the past work, youth were directed to act in a specific manner (e.g., discuss their day, Segrin and Flora 1998). There have been few published studies in which researchers simply observe youth interacting; most of these studies have focused on observations of peers, not best friends. As noted earlier, best friendships offer a unique context for development and are particular important to young adolescents (Berndt 1999; 2004.) The formation of healthy friendships has been hypothesized as playing a preventive role against the development of psychopathology (Oland and Shaw 2005). Thus, an important question to ask is: How do youth disclose appropriately and respond to disclosures in ways that promote healthy friendships and do not contribute to feelings of depression and anxiety?

Opportunities for Prevention

Given the connections between friendship and internalizing disorders, it would seem prudent to consider the process of intimate disclosure as an opportunity for prevention. While intimate disclosure has been found to facilitate closeness among friends, it also appears to have strong emotional costs, particularly for girls (e.g., Smith and Rose 2011). When youth do disclose to each other, they may not respond in the most helpful of ways. Some may continue to seek reassurance from their friends and, in doing so, inadvertently damage their friendship (e.g., Joiner and Metalsky 2001; Prinstein et al. 2005). Others, particularly girls, may find themselves caught in a cycle of co-rumination, which may increase their emotional suffering (e.g., Smith and Rose 2011; Stone et al, 2011). Given that much of the research points to a developmental shift that takes place as youth enter adolescence (e.g., Avenevoli et al. 2008; Prinstein et al. 2005; Rose 2002; Tannen 1990), late childhood may offer a key time for prevention efforts.

Perhaps most integral to prevention efforts is the unification of the work on disclosure and internalizing problems. Researchers from social, clinical and developmental psychology need to combine their efforts to identify appropriate conversation efforts for youth. Historians have noted that psychology today is hardly a unified discipline (e.g., Goodwin 2008), with some arguing the concept of a single field ought to be replaced with the idea of a set of psychological studies (Koch 1984). While interdisciplinary work should be encouraged, especially with sociolinguists (e.g., Tannen 1990), work among the different areas of psychology is essential to the success of any efforts.

Public health models often approach prevention at three levels (Lorion, Myers, Bartels, and Dennis 1994). Primary prevention aims to reduce the incidence of a problem before it occurs; secondary prevention targets individuals by minimizing or reducing the severity and continuation of a problem; and tertiary prevention attempts to minimize the course of a problem once it is evident and causing harm (Wolfe and Jaffe 1999). An important first step in developing prevention efforts would be to identify skills involved in responding to intimate disclosure that facilitate friendship support without sacrificing mental wellness. Rather than view boys' discussions as being superficial, perhaps they offer an opportunity to study alternate ways of support within a friendship. Interdisciplinary providing healthy work social/clinical/developmental psychologists and sociocultural linguists should be encouraged. Many constructs discussed in this paper seem to overlap; understanding their connections could move this area forward. Research also would need to determine the best developmental stage as which to offer such conversational training. Primary prevention efforts may be best utilized within elementary school aged children, while secondary and tertiary efforts may be targeted toward middle and high school aged adolescents.

There are a number of empirically validated programs that take place within schools (where large groups of children can be reached easily) focusing on the prevention of substance use, mental disorders, and delinquency (for reviews, see Domitrovich and Greenberg 2000;

Greenberg, Kusche, Cook, and Quamma 1995). Programs that incorporate social and emotional skills building (e.g., Greenberg, Kusche, Cook and Quamma 1995) may add curriculum devoted to intimate disclosure. Theory of emotional intelligence (Goleman 1995; Salovey and Mayer 1990) suggests that self-awareness and social awareness are best learned during childhood (Rathus 2011), linking back to the developmental piece. Certainly, additional work is needed to ascertain the appropriate level of prevention and how to best incorporate social and emotional skills related to intimate disclosure. Future research may address prevention strategies and curriculum development so that youth are better equipped to respond to their friends' disclosures.

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